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ABSTRACT

The Westport Business Technology Magnet High School completed its first year of operation as part of the Kansas City (Missouri) School District's Long-Range Magnet School Plan. The program was evaluated through classroom observations, enrollment rates and test scores, and surveys of 146 students, 49 teachers, and 217 parents. Program implementation was hindered by the loss of the school principal; the absence of a program administrator; and the lack of facilities, equipment, and supplies. Computer equipment was not available until the second semester. The school operated below capacity during its first year of theme implementation. The 1990-1991 court-ordered desegregation goals were not met: minority enrollment increased by a minimum of 1 percent in each grade rather than the desired 2 percent reduction. With the exception of the ninth-grade written expression subtest, minority achievement test scores were below district and national averages. Non-minority student test gains were observed from 1990 scores. Parents were the only group who were satisfied with the theme. Students were equally divided on magnet theme issues. Teachers were dissatisfied with theme implementation, planning and preparation, intrastaff cooperation, and administrative support. (NLA)

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Formative Evaluation of the Westport Business Technology Magnet High School

1990-1991

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Formative Evaluation of the Westport Business Technology Magnet High School

1990-1991

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August 1991

Evaluation Office
Desegregation Planning Department
The School District of Kansas City, Missouri

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Executive Summary

The Westport Business Technology Magnet High School completed its first year of operation as part of the Kansas City Missouri School District's *Long-Range Magnet School Plan*. This formative evaluation report documents the progress made by Westport High School during the first year of implementing the business technology theme.

Implementation of the business technology program was hindered seriously by the loss of school principal, the absence of a program administrator, and the lack of facilities, equipment and supplies. Computer equipment and appropriate computer rooms were not available until the second semester. The Business Technology Magnet High School operated below capacity during its first year of theme implementation. Also, the 1990-1991 court-ordered desegregation goals were not met. Minority enrollment increased by a minimum of 1% in each grade rather than the desired 2% reduction. With the exception of one subtest (ninth grade written expression), minority TAP achievement scores were below district and national averages. Gains were observed from 1990 scores, however. Non-minority students exceeded national and district norms on the TAP in the eleventh and twelfth grades. The ninth grade students collectively exceeded the district norms in the DRP test. Tenth grade students scored below the district and state averages on the MMAT tests in English/language arts and math.

Parents were the only group who expressed majority satisfaction with the theme. Students were about equally divided on issues concerning their magnet theme experience. Teachers clearly were dissatisfied with theme implementation, planning and preparation, intra-staff cooperation, and administrative support.

FORMATIVE EVALUATION OF THE WESTPORT BUSINESS TECHNOLOGY MAGNET HIGH SCHOOL

1990-1991

Introduction

During the 1990-1991 school year, Westport High School completed the first year of implementation of the Business Technology Magnet program as part of the *Long-Range Magnet School Plan*, hereafter referred to as the Long-Range Plan (Hale and Levine, 1986). Currently, the business technology theme is offered exclusively at Westport High School. This formative evaluation documents the progress made by Westport High School during the first year of implementing the business technology theme.

According to the Long-Range Plan, the objective of the Business Technology Magnet High School is to provide students the necessary instructional program and advanced technical skills for entry level employment in a business environment or the relevant preparation for post-secondary business schooling.

The Long-Range Plan established a longitudinal schedule for evaluation of magnet school programs. Specifically, "...a [magnet] school's effectiveness should not be determined during its first year of operation. Evaluation on an individual basis during its early years should be designed with the intent of improving, modifying, and revising program implementation" (Hale and Levine, 1986,pp.46-47). The goal of the present report is to provide decision-makers with evaluative information useful in improving program implementation.

The presentation of results is preceded by a description of the business technology program and a discussion of the evaluation design.

Program Description

The magnet school site plan, developed and written during the planning year (1989-1990), was not in the possession of the Westport Business Technology school leadership or administration. The site plan, therefore, was not available for reference during the present evaluation report. A description of the program as implemented during the 1990-1991 school year was gained through examination of the Business Technology Magnet High School Course Booklet (Westport High School, 1990a-d) for each of the grades and from the 1990-1991 curriculum

schedule. These crude resources can only describe what was implemented and not what should have been implemented according to plan. The Long-Range Plan provides the sole source of what should have been implemented during 1990-1991 at the Business Technology Magnet High School.

The instructional program of the Business Technology Magnet High School as described in the Long-Range Plan contains five major components. These are:

1. Career exploration
2. Office careers technology
3. Marketing and management careers
4. International languages
5. Internships

The four year curriculum is designed to progressively educate and train the student in business technology systems and to prepare them for entry-level career opportunities in a business arena. Skills development in the program is expected to produce a technically sophisticated and highly trained individual able to compete successfully in the world of work or to qualify for admittance into post-secondary business or vocational/technical schools. The Long-Range Plan proposes that the Business Technology Magnet High School provide fully equipped laboratories and qualified instruction in: word processing, data processing/entry, reprography, insurance, secretarial technology, accounting, merchandising/retailing, finance and credit. Also, in order to compete globally, a language and culture laboratory is to be provided with instruction in Japanese, Chinese, Arabic, Korean, Portuguese and Russian. All students must pass two language courses from the foregoing list of international languages. Lastly, internships will provide real work experiences for students.

Evaluation Design

Questions addressed in this first year formative evaluation were:

1. Has the school met established enrollment goals?

2. Was the program implemented as detailed in the *Long-Range Magnet School Plan* (Hale and Levine, 1986)?

3. What are parent, student, teacher, and school leadership perceptions about and attitudes toward the program?

4. What are the levels of student achievement in the school?

The evaluation was facilitated through classroom observations and site visits, perception data gathered through interviews and survey instruments, and through data obtained from the district's research and testing office.

Results

Demographic Data

Enrollment and racial composition data are presented for the first year of magnet school operations as well as the year prior to implementation of the business technology theme. The previous year (1989-1990) is treated as the baseline year and gives perspective to the magnet year data. Minority and non-minority enrollments are reported by grade. All demographic data for the Business Technology Magnet High School were extracted from the official student membership reports prepared by the research office of the school district.

Enrollment capacity of the business technology program for each grade is given in Table 1. Only the ninth grade operated at or above capacity. The business technology program was 14% below capacity during the 1990-1991 school year.

The Long-Range Plan was designed under court-order to improve desegregation in the Kansas City, Missouri School District. Admissions policies to magnet schools are the control-

Table 1

Westport Business Technology Magnet High School
Program Capacity and Actual Capacity
1990 - 1991

Grade	Program Capacity[1]	Actual[2]	Difference	% of Capacity
Nine	169	216	+ 47	129%
Ten	318	225	-93	71%
Eleven	202	184	-18	91%
Twelve	150	98	-52	65%
Total	839	723	-116	86%

Note: Percentages are rounded to the nearest whole percent.

1 Program capacity utilized by the Admission's Office when placing students in magnet program.

2 From *September 26, 1990 Student Membership* (Research Office, 1990).

ling device in achieving integration. A goal of integration defined for each magnet school is a ratio of 60% minority and 40% non-minority at each grade level.

Traditional schools having a greater than 60% minority student population are expected to move at least 2% closer to 60% minority in each grade every year when converted to a magnet school, such as the Business Technology Magnet High School.

Enrollment data (Table 2) for the first year of implementation at the Business Technology Magnet High School revealed these facts:

1. Enrollment was down 11% in 1990-1991 from the baseline year (1989-1990).

2. Minority enrollment goals for the 1990-1991 school year were not achieved in any grade. Ninth and tenth grade minority enrollments were within 3% and 4% of goal, respectively. Eleventh and twelfth grades exceeded expected minority enrollments by 11% and 12%, respectively.

3. The minority population increased from baseline in all grades, especially eleventh and twelfth grades.

4. An overall increase of 3% occurred in the minority population rather than the desired 2% decrease.

The magnet theme did not improve desegregation at Westport High School. Each grade, and the school as a whole, regressed to a non-minority enrollment less than that found before

Table 2

Westport Business Technology Magnet High School
Minority & Non-Minority Enrollment
1989-1990 & 1990-1991

	1989 - 1990				1990 - 1991			
	Minority		Non-Minority		Minority		Non-Minority	
Grade	N	%	N	%	N	%	N	%
Nine	310	93%	24	7%	202	94%	14	6%
Ten	204	91%	20	9%	209	93%	16	7%
Eleven	118	87%	18	13%	176	96%	8	4%
Twelve	100	83%	20	17%	89	91%	9	9%
Total	732	90%	82	10%	676	93%	47	7%
Grand Total			814				723	

Note: Percentages are rounded to the nearest whole percent. Enrollment data from *September 27, 1989 Student Membership* (Research Office, 1989) and *September 26, 1990 Student Membership* (Research Office, 1990).

instituting the magnet program. The greatest loss in non-minority enrollment occurred in eleventh and twelfth grades, with net losses of 56% and 55%, respectively.

Implementation

Program implementation was evaluated from data collected through classroom observations[1], site visits, interviews with the school principal and senior curriculum coordinator, and teacher questionnaires. Classrooms to observe were selected randomly at the beginning of the school year, and observations continued through May, 1991. Data regarding physical evidence of the theme, infusion of the theme into the basic curriculum and student activities were gathered during the observation period (approximately 45-50 minutes). Additionally, one visit was made to each classroom throughout the building to document physical evidence of the business technology theme.

Numerous obstacles constrained the first year of magnet program implementation. School leadership did not have the magnet school site plan which details implementation goals, objectives, strategies and schedules. This posed a considerable hinderance to implementation of the business technology theme, and evaluation of the magnet program.

The business technology theme was minimally implemented during its first year. The Business Technology Magnet High School opened without a full staff (one theme and one core teaching position were unfilled), and without necessary equipment (*e.g.*, computers, furniture) and supplies (*e.g.*, software, textbooks). Business rooms had neither the electrical wiring necessary for operating theme-related equipment nor a trained person available to configure the equipment as it arrived. The principal was dismissed publicly early in the year and an assistant principal was promoted to acting principal. In addition to permanent leadership, the Business Technology Magnet High School did not have a Program Administrator during the 1990-1991 school year. Staff, equipment, supplies and technicians arrived in late fall. School leadership stated that implementation of the theme did not begin until the 1991 spring semester.

In addition to internal problems, extensive renovations of Westport High School were underway throughout the 1990-1991 school year. As portions of the building were completed,

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1 A previous program evaluator developed the observation schedule and selected classrooms for observation.

classrooms were vacated and moved into the renovated rooms. Teachers and students were displaced periodically resulting in considerable disruption and discontinuity of the learning environment during the year. Renovations are expected to be completed this summer and the Business Technology Magnet High School should be in full operation for the 1991-1992 school year.

Staff. As stated previously, the year began without a full staff. At the end-of-year interview, school leadership stated that staffing had not been a hinderance to implementation since all theme teachers, including resource teachers, were in place at the beginning of the second semester. Absence of technical personnel was a hinderance since such skills were needed to get the business equipment operating and useable by the students. However, according to the acting principal, the greatest hindrances to theme implementation were the loss of the principal (who was in the best position to effectively implement the theme) and the lack of a program administrator. The acting principal characterized his first semester as a learning process -- learning how to principal and to implement a magnet theme.

Construction/Renovation. Implementation of the business technology theme was impeded by ongoing construction and renovation efforts during the first year. Much of the work on the old building was completed this year. The library, the gymnasium and one science lab still await completion. As stated earlier, teachers and students were shuffled about the building as progress continued. Across the street from Westport High School is Westport Middle School which was undergoing construction also. Thus, the daily dirt and noise was doubled and competition for the quite limited parking was fierce.

Materials and Supplies. Lack of materials and supplies seriously constrained theme implementation during the first half of the school year. In addition to the absence of computers, printers, etc. for the business classes, basic supplies, textbooks and lab equipment were unavailable, also. In May, only one-third of teachers reported having necessary and sufficient supplies to teach their courses. In open comments, a few teachers reported having to personally purchase supplies in order to effectively teach. According to teacher responses, one of the problems with supplies was inaccessibility, not lack. This will be elaborated below in Teacher Perceptions.

Strands of Instruction. Without the magnet school site plan, it is impossible to determine the instructional strands for the business technology program and which were supposed to be implemented the first year. Clearly, not all strands were fully implemented. The course booklet

for grades 9, 10, 11 and 12 duly lists courses in the five components outlined in the Long-Range Plan (see above Program Description). Courses actually offered during the first year of implementation were Chinese, keyboarding, word processing, basic programming, computer application, accounting, business careers, business communication, small business, word processing, office management, speed writing, business law, and business management. The emphasis was on keyboarding, with 14 classes offered, compared to a maximum of four classes in some areas (*e.g.*, word processing, business careers) and one class in most (*e.g.*, business law, small business, accounting, basic programming, business communication). A "shadowing", or internship, program was facilitated and implemented through the cooperation of various business firms in Kansas City (*e.g.*, Commerce Bank, Kemper Services). The program was available to tenth grade students.

Infusion. In November, the instructional assistant reported that the first in-service did not consider infusion. When questioned in May, teachers expressed considerable dissatisfaction with in-service programs. Open comments offered by the teachers on the quality of in-service programs were negative. Teachers assessed that in-services were devoid of strategies on infusing the theme. Yet, 82% of teachers felt they were successfully infusing the theme into the core curricula. Classroom observations conflict with teacher self-report in finding infusion activities in only 36% of observations (Table 3). Also, a simple infusion strategy which employs the use of theme-related vocabulary was used in only 28% of observed classes.

Table 3

Westport Business Technology Magnet High School
Building & Classroom Observations
Percent of Classroom Visits

Category Evidence	1990-1991
Physical Evidence of Theme	
Student work displayed	8%
Theme displays	75%
Classroom Observations	
Theme vocabulary displayed, used by teachers and students	28%
Teacher infused theme	36%
Students participating in lesson and engaged in lesson appropriate activity	92%

Note: Percentages are rounded to the nearest whole percent and denote frequency of category occurrence.

Evidence of Theme and Theme-Related Activities. The business theme was contained on one floor of the school building, and theme displays were observed three-fourths of the time on this floor. However, except for one occasion, student theme work was not in evidence in either the classrooms or elsewhere in the building.

The business students competed in the Longview Community College Novice Accounting Competition of the Greater KC Suburban Business Contest, and participated in field trips to Hallmark Cards, Federal Reserve Bank, KCPL, and Commerce Bank. Also, numerous Kemper Services businesses were visited as part of the shadowing program. School leadership offered the following as examples of theme-relative activities at the Business Technology Magnet High School:

- Exchange City
- Foreign Language Fair
- Jr. Achievement Economic Programs
- Rockhurst College Business Explorers
- Entrepreneur Program at Rockhurst College
- National Urban Affairs Counsel/Future Business Leaders Association

Perceptions

Student Perceptions. Approximately one-third of the students were scheduled to participate in a survey regarding perceptions of the magnet program at Westport High School. The students were selected from a random sample of English/Language Arts classes. Students were given a questionnaire containing items measuring five broad areas of their magnet experience. Areas included: business technology component, opportunity for hands-on experience, school climate, communications, and academic challenge (see Table 4).

Fifty-one percent of the students surveyed reported enrollment in a theme-related class, other than foreign language (item 4, 6 and 7), and of these, 58% liked the classes (item 8). A majority of students had an opportunity to use a computer (item 2, 68%). The implemented programs seemed to positively affect a portion of the student body as evidenced by 52% who expressed an increased appreciation of business through enrollment in the business technology program (item 12). Field trips, one of the few areas that captured over two-thirds favorable majority, were appreciated by 78% of the students. Also, 80% were glad they attended the Business Technology Magnet High School (item 1), and most would recommend the school to friends (item 28, 64%).

Table 4

Westport Business Technology Magnet High School
Student Perceptions (N = 146), Spring 1991

Statement	Yes	No
1. I am glad I go to Westport Business Technology Magnet.	80%	19%
2. I have had an opportunity to use computers at school this year.	68%	32%
3. I have participated in career exploration activities.	58%	42%
4. I enrolled in a business technology class.	58%	42%
5. I enrolled in a foreign language class.	17%	83%
6. I enrolled in a career education class.	52%	47%
7. I enrolled in a business education class.	43%	56%
8. I like my business technology classes.	58%	43%
9. I like my regular classes.	66%	33%
10. I enjoyed and benefitted from the business technology related field trips.	78%	22%
11. I learned a lot about business and computers this year.	51%	49%
12. Enrollment at Westport has increased my appreciation of business.	52%	47%
13. Non-theme teachers helped me relate business to the subjects they teach.	56%	44%
14. Teachers challenge me to work hard.	75%	25%
15. Teachers are willing to work with students.	73%	27%
16. My classes are too easy.	23%	76%
17. I wish regular classes were more challenging.	43%	58%
18. I got the classes I wanted.	42%	58%
19. The counseling office helped me plan the courses I wanted to take at Westport.	56%	44%
20. I plan on going to college after graduating.	86%	13%
21. There is good communication between students are teachers.	60%	40%
22. There is good communication between students and principal.	36%	64%
23. There is good communication between students and assistant principal.	61%	39%
24. There is good communication between students and counselors.	81%	19%
25. I feel safe at Westport High.	38%	61%
26. Students get along with students of other races and cultures.	46%	54%
27. I participated in classes/activities at Westport which gave me information on how to work with students of other races/cultures.	42%	57%
28. I would recommend Westport Business Technology Magnet to friends.	64%	36%

Note: Percentages are rounded to the nearest whole percent.

Most students enjoyed the most favorable communications with counselors (item 24, 81%), and to a lesser extent, with the principal (item 22, 36%). Student-teacher relationships were favorable -- 60% of students felt communications were good (item 21) and 73% felt teachers were willing to work with them (item 15). Less than half of the students perceived relations between students of other races and cultures as amicable (item 26), and even fewer participated in school activities which might change that perception (item 27). Such a perception might influence how safe a student feels at school. Only 38% of the students surveyed stated they were safe at Westport High School (item 25). More activities aimed at enculturation and/or culture appreciation should be offered in effort to increase feelings of security.

Teacher Perceptions. Teacher perceptions of the progress of the magnet program implementation and school environment were gathered through fall and spring questionnaires. In addition to defined response categories, teachers were given the opportunity to write-in comments with anonymity assured. Results of the spring questionnaire are presented in Table 5.

Generally, teacher perceptions of the business technology theme were unfavorable or apathetic. (Apathy was deduced from the high frequency of "no opinion" responses to many questions.) Furthermore, perceptions had deteriorated considerably since the fall questionnaire. Only the statements measuring infusion (item 11,82%), field trip quality (item 9, 59%), and student enjoyment of the theme (item 18, 51%) received a positive response from more than one half of the teachers. Over two-thirds rated the program fair to poor (item 21). Teachers clearly were not satisfied nor pleased with their first year experience of magnet theme implementation.

Possible explanations for the negative perceptions of the business technology theme at the Business Technology Magnet High School may be gained from the write-in comments. Unpleasant staff relations and absence of discipline in the school were most frequently mentioned in teacher comments. Problems cited in over 60% of the comments were: lack of cooperation between business magnet and regular teachers, inept leadership, and an administration difficult to work with and non-responsive (especially the curriculum coordinator). Polarity among the staff was the critical issue pronounced by a majority of teachers.

Discipline was another issue of concern mentioned frequently by the teachers. Only a third of teachers reported feeling safe teaching at Westport High School (item 20) and the lack of discipline may be a contributing factor. The comments indicated a need for a structured,

Table 5

Westport Business Technology Magnet High School
Teacher Perceptions (N = 49), Spring 1991

Statement	Yes	No	No Opinion
1. I enjoy teaching the theme.	51%	18%	31%
2. The school implemented the theme according to goals and objectives.	37%	35%	29%
3. The school climate is conducive to the theme.	20%	63%	16%
4. I am satisfied with staff development/in-service regarding the theme.	27%	43%	31%
5. Supplies and materials are sufficient to teach the theme.	35%	51%	14%
6. Supplies and materials are sufficient to teach the core curriculum.	39%	53%	8%
7. Textbooks are appropriate for the students.	47%	41%	12%
8. Students participated in the theme field trips.	45%	16%	39%
9. I am satisfied with quality of field trips.	59%	22%	18%
10. The facility is adequate and meets needs.	37%	53%	10%
11. I am able to infuse the theme into basic curricula.	82%	4%	14%
12. My class schedules are not a problem.	43%	33%	25%
13. Students are appropriately placed in classes.	22%	61%	16%
14. Building level administration provided support to implement the theme.	27%	37%	37%
15. Students are making good academic progress.	25%	53%	22%
16. Students are making good academic progress because of the theme.	14%	49%	37%
17. Theme and regular teachers work together to implement the theme.	41%	45%	14%
18. Students enjoy working in the theme.	51%	10%	39%
19. The theme has improved desegregation.	8%	60%	33%
20. I feel safe teaching at Westport Business Technology Magnet.	33%	35%	33%

	Rating	Percent
21. Rating of Westport Business Technology Magnet.	Excellent	4%
	Good	13%
	Average	15%
	Fair	40%
	Poor	28%

Note: Percentages are rounded to the nearest whole percent.

orderly, business-like environment. Such an environment may be possible, or at least facilitated, by a consistent, enforced discipline policy.

Parent Perceptions. A random telephone sample of 25% of the parents of students attending the Business Technology Magnet High School were given the opportunity to present their perceptions of the theme and school (see Table 6). Ethnic differences noted in parental perceptions are discussed in the text.

Overall, parents were satisfied with the magnet program, the progress their child made both academically and in the theme content area, and with the teachers, principal and communications from school. Eighty-two percent would recommend the school to other parents (item 14). A higher percentage of non-minority parents indicated satisfaction with the program (93%) than minority parents (86%). Also, all non-minority parents surveyed felt that their child was making academic progress as compared to 89% of minority parents. The impact of the theme upon their child was stated as positive by almost half the parents (item 11, 46% and item 12, 51%), and slightly more were minority rather than non-minority parents. Although nearly all the parents felt welcome at the Business Technology Magnet High School, only about two-thirds claimed attendance at school functions other than teacher conferences (item 10, 64%). Again, about 6% more minority than non-minority parents participated in school programs and attended conferences.

Parents learned of the magnet program primarily by living in the neighborhood or attending last year. These same reasons were given most frequently in response to why parents chose the business technology program. Interestingly, "neighborhood school" as a reason for enrolling did not differ between ethnic groups (57% non-minority and 60% minority parents). Notably, 93% of non-minority as compared to 71% of minority parents chose the Business Technology Magnet High School because their child attended last year. This is intriguing given the declining enrollment of non-minority students detailed above (see Demographics). The data could be interpreted as indicating a transfer to another school by some of those non-minority students previously enrolled at Westport High School who did not live in the neighborhood. Other reasons parents gave primarily for enrolling their child in the Business Technology Magnet High School were being assigned by the district and Project Choice.

Safety was not an issue when examining parental response in total (item 15, 70%). However, 69% of minority parents as compared to 86% of non-minority parents perceived their child to be safe at the Business Technology Magnet High School, which is a marked ethnic difference.

Table 6

Westport Business Technology Magnet High School
Parent Perceptions (N = 217), Spring 1991

Statement	Yes	No
1. I am satisfied with the business technology program.	87%	8%
2. I am satisfied with progress my child has made in the business technology theme.	79%	16%
3. I am satisfied with progress my child has made in basic skills.	89%	8%
4. I am satisfied with my child's teachers.	83%	8%
5. The principal is responsive to my concerns.	73%	15%
6. I am satisfied with communications from school.	81%	19%
7. Communications from school are understandable and helpful.	88%	12%
8. I feel welcome at Westport Business Technology Magnet.	97%	3%
9. During this school year I attended a parent teacher conference.	70%	30%
10. During this school year I attended other meetings or school programs.	64%	36%
11. My child has talked about school more since the magnet program began.	46%	52%
12. My child has talked about school more with the magnet program in place.	51%	45%
13. Westport Business Technology Maget is clean and in good repair.	77%	16%
14. I would recommend Westport Business Technology Magnet to other parents.	82%	14%
15. I feel my child is safe at Westport.	70%	27%
16. Transportation takes a reasonable amount of time.[1]	95%	5%
17. Transportation is safe.[1]	79%	16%

Note: Percentages are rounded to the nearest whole percent. Difference from 100% in a statement represents the proportion of "no opinion" responses.

1 Based on number of parents stating their child used district transportation.

Achievement

Student achievement is measured by end of the year standardized tests. For the Business Technology Magnet High School, these tests are the Tests of Achievement and Proficiency (TAP), the Degrees of Reading Power (DRP), and the Missouri Mastery and Achievement Tests (MMAT). The results of the TAP are reported for the baseline year (pre-implementation) 1989-1990 and current academic year for every grade. DRP and MMAT tests were taken

by the ninth and tenth grades, respectively. The corresponding national percentile ranks and the district norms are reported for comparative purposes.

TAP. A summary of the Business Technology Magnet High School and district TAP scores for 1990 and 1991 is presented in Table 7. The percentile ranks reported were calculated from mean grade equivalent scores and indicate the relative performance of the students as compared to the 1985 national norms. For comparison, the national average percentile score is 50.

As Table 7 indicates, minority students, in seventh and eighth grades and in all subtests, scored below the national and district norms. Minority ninth grade students exceeded district norms in written experssion.

Non-minority eleventh and twelfth grade students scored above the national norms and district norms in the subjects tested. The tenth grade score for written expression was above

Table 7

Westport Business Technology Magnet High School
Tests of Achievement and Proficiency
Spring 1990 & 1991

	Reading				Written Expression				Math			
Grade Ethnicity	1990	1991	Dist. 1991	Nat'l. Norm	1990	1991	Dist. 1991	Nat'l. Norm	1990	1991	Dist. 1991	Nat'l. Norm
Nine												
Minority	31	37			42	47			23	29		
			41	50			45	50			36	50
Non-Minority	41	37			43	44			34	26		
Ten												
Minority	31	33			44	42			30	29		
			43	50			44	50			40	50
Non-Minority	63	41			49	50			49	36		
Eleven												
Minority	32	37			33	40			27	31		
			40	50			42	50			40	50
Non-Minority	58	72			56	65			58	55		
Twelve												
Minority	32	31			40	36			30	30		
			39	50			41	50			39	50
Non-Minority	60	67			39	65			39	61		

Note: Data are percentiles based on grade equivalent means.

the national and district norms. All ninth and tenth grade scores were below the district norms in reading and math.

Compared to last year minority ninth and eleventh grade students improved in all subjects. The scores of tenth and twelfth graders dropped a few points in every subject. Excluding ninth graders, non-minority scores were better than last year in most subjects as well. Math was an exception, with the scores improving from 1990 only for twelfth graders. The eleventh and twelfth grade non-minorities showed some remarkable progress since 1990. Both grades exceeded the national norms in 1991, and improved over last year in all subjects, with the exception of eleventh grade math. (The achievement is not to be dismissed, but the number of non-minority students was quite small averaging nine students tested on a particular subject per grade level. Also, 55% of the non-minority students enrolled in 1989-1990 were not enrolled in 1990-1991, and it is likely that only the most motivated students remain.)

DRP. The Degrees of Reading Power Test (DRP) measures reading comprehension and is used primarily as a diagnostic test to match appropriate instructional materials with a student's reading level. The test results are reported at three levels: independent, instructional, and frustration. DRP units reported are for the instructional level.

All district ninth grade students took the test in the spring, 1991. The Business Technology Magnet High School ninth graders scored above the district norms for the reading skills assessed by the DRP. The ninth graders averaged 62 DRP units which was a national percentile rank of 35. The district mean DRP unit score was 51, which represents a percentile rank score of 26.

MMAT. Table 8 presents the results of the current year MMAT tests in English/language arts and math. MMAT scores are reported in average scale scores and can be compared to district and state averages. Business Technology Magnet High School tenth graders scored below the district and state averages in both subtests.

Summary and Recommendations

The Business Technology Magnet High School at Westport completed the first year of implementation. The theme was minimally implemented during its first year due to tangible factors such as extensive construction activities in and around the building, loss of principal at the first of the year, no program administrator, and lack of necessary materials and equipment. Contributing factors, revealed through interviews and questionnaires, were: (1) an inexperi-

Table 8

Westport Business Technology
Magnet High School
Missouri Mastery & Achievement Tests
Average Scale Scores
Grade 10, 1991

	English/ Language Arts	Math
Westport Business	253	265
District	273	278
State	313	326

enced acting principal who was unprepared to administrate a magnet program and did not possess the vital magnet school site planning outline as a source of guidance, (2) poor communication among school leadership, theme administrators, theme teachers, and core teachers, (3) no coordination of effort among staff to implement the theme, (4) irrelevant in-service programs, and (5) the absence of a consistent, defined and enforced discipline policy. Difficulties are to be expected in any new program, but the problems at Westport High School originate from the core, and require resolution in order for the theme to have a chance to work.

The Business Technology Magnet High School operated below program capacity and did not meet the 1990-1991 court-ordered desegregation goals. The decrease in the non-minority population was pronounced in the eleventh and twelfth grades.

Renovation and construction efforts had a profound impact upon the implementation of the business technology theme. This centered on the lack of available laboratory facilities and equipment until the second semester. Many of the critical features of the magnet theme (*e.g.*, occupational skills laboratories and international language laboratory) were not available and/or fully staffed during the first year of implementation. As such, the compelling educational opportunities were not available as incentives for drawing non-minority students into the Business Technology Magnet High School.

Observational data and teacher self-report data indicated low frequency of infusion. Teachers were dissatisfied with in-service programs generally, and reported there was no consideration given to infusion activities. Half of the students were not participating in theme classes. These findings suggest that implementation of the program was constrained by the

failure to have the necessary professional preparation and training as well as facilities and equipment prior to the beginning of the year.

Parent perceptions of the magnet program, its staff, and results were favorable. Half the parents reported enrolling their child at the Business Technology Magnet High School because it was in the neighborhood or attended last year. The theme was not a priority for most of the parents.

TAP achievement data for minority students were below the national norms, and below the district norms in all subtests except ninth grade written expression. However, compared to last year, scores in all subject areas improved for the ninth and eleventh grade minority students. Eleventh and twelfth grade non-minorities exceeded national norms in all subjects tested. DRP scores for ninth graders indicated reading skills above the district norms. English/language arts and math skills of tenth graders assessed by the MMAT were below district and state averages.

Based upon the evidence gathered for this formative evaluation, the following recommendations are offered:

1. School leadership must obtain a copy of the magnet school site planning outline for the Business Technology Magnet High School which presumably was written during the planning year 1988-1990. Implementation goals and objectives are contained therein and must be known before the program can be successfully implemented.

2. Administration and teachers must address and resolve critical issues of staff communication, relation and cooperation. The concern voiced by the majority of teachers revolved around the negative atmosphere contained within the school, particularly a polarity between theme and academic teachers.

3. In-service and staff development programs must focus on strategies to assist teachers in their task of theme implementation. A very low percent of teachers (27%) found the in-services helpful and comments regarding in-services were unfavorable. Also, classroom observations indicated low frequency of infusion

4. Define and execute a discipline policy appropriate to the environment at the Business Technology Magnet High School. Teachers indicated a need for a structured, business-like environment and an effective discipline policy. The majority of students and teachers did not feel safe at school. Such insecurity can be directly attributed to an inadequately controlled student population.

5. Continue efforts to bring the racial composition into compliance with court-ordered desegregation goals. Currently, the Business Technology Magnet High School has progressed -3.6% toward the desegregation goals.

6. The district needs to hire a program administrator for the Business Technology Magnet High School. The first year of theme implementation operated without this critical position filled.

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